

REMARKS

Claims 1-20 are pending in this application. Reconsideration in view of the following remarks is respectfully requested.

Entry of this Response is proper under 37 C.F.R. §1.116(b) because the Response: (a) places the application in condition for allowance as discussed below; (b) does not raise any new issues requiring further search and/or consideration; and (c) places the application in better form for appeal. Accordingly, Applicants respectfully request entry of this Amendment.

In the Office Action, claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Adetutu et al. (US Patent No. 6,902,969), hereinafter "Adetutu." Applicants respectfully submit that the Office is ignoring and/or mis-reading claim language and that the claimed invention is allowable for the reasons stated below.

In Adetutu, a layer 116 of titanium nitride is formed over an area 134 and removed from another area 136. A layer 118 of a second metal is formed over the entire substrate. Following formation of other layers 120, 122, layers 116, 118, 120, 122 are patterned by patterned photoresist portion 124 over area 134 and layers 118, 120, 122 are patterned over area 136 by patterned photoresist portion 126. In the Office Action, the Examiner asserts layer 118 is a conductive hard mask "because it is used during the etch process over (116) in the formation of gate (137)." Office Action, page 5. Applicants respectfully submit that the Office's conclusion is illogical, and even if correct does not make Adetutu disclose all of the claimed invention.

First, Applicants submit that it is inappropriate to consider an intermediate layer 118 within a stack of materials as a mask for another, lower layer within the stack. In particular, such

a usage is highly unconventional. Typically, a mask is a top level of material that is patterned. More importantly, Adetutu does not support this assertion because the reference properly uses the term "mask" when appropriate (see e.g., col. 2, lines 54-61). However, Adetutu does not apply the term to layer 118. Accordingly, Adetutu does not disclose, *inter alia*, "forming a conductive hard mask," as recited in the independent claims.

Second, assuming *arguendo*, that layer 118 is a mask, Applicants submit Adetutu still does not disclose each and every feature of the claimed invention. For example, Adetutu does not disclose "removing the photoresist mask, leaving the conductive hard mask for use in removing the material from the area," as recited in claim 1 (emphasis added). "The material" refers to the "material having the first work function," which as alleged by the Office is layer 116 in Adetutu. The "area" is "for a device having a second, different work function." See claim 1. Applicant assumes that the Office considers area 136 as "the area" since the Office alleges the different work functions are provided by layer 116 and 118. Office Action, page 5. However, in Adetutu, at the point that photoresist portions 124, 126 are removed (FIG. 7), material 116 has already been removed from any area (e.g., area 136) that would have a device having a second, different work function. As a result, it is illogical to assert that layer 118 is left "for use in removing the material in the area" after the photoresist is removed. In other words, Adetutu does not use layer 118 in removing the first layer 116 from the area (area 136). If the Office alleges that area 134 is the "area", the argument still fails because layer 118 does not remove layer 116 in that area because layer 116 remains under layer 118. Accordingly, Adetutu does not disclose the removing step.

In view of the foregoing, Adetutu does not anticipate the claimed invention.

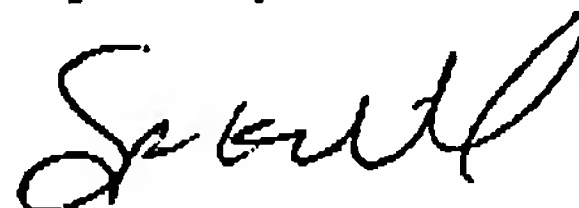
Adetutu also fails to disclose each and every feature of independent claims 6 and 16. For example, claims 6 and 16 include, *inter alia*, "removing the conductive hard mask from an area for a particular device type using a photoresist mask." Adetutu never removes the alleged conductive hard mask layer 118 from such an area - the alleged conductive hard mask layer 118 is in every device in Adetutu. With special regard to claim 6, the above stated removing step also includes "selective to the first metallic conductor," which is alleged to be layer 116 in Adetutu. In Adetutu, no removing step is selective to layer 116 because it is always removed if exposed. With regard to claims 6 and 16, Adetutu also does not disclose, *inter alia*, "removing the photoresist mask; removing the first metallic conductor in the area [for a particular device type, as described above] with a remaining portion of the conductive hard mask protecting the first metallic conductor." In Adetutu, layer 116 is already removed by the time that photoresist portions 124, 126 are removed. Therefore, the Office's conclusion does not make sense - there is no disclosure of removing the alleged first metallic conductor layer 116 using a remaining portion of the alleged conductive hard mask layer 118 after photoresist removal. Accordingly, Applicants request withdrawal of the rejections.

The dependent claims are believed allowable for the same reasons stated above, as well as for their own additional features.

CONCLUSIONS

Applicants respectfully submit that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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